

In the Claims:

Claims 1-56 (canceled).

Claim 57 (new): An integrated circuit comprising:

a semiconductive substrate;

an adhesion material above and physically contacting the substrate;

and

a roughened platinum layer over the adhesion material, the roughened platinum layer having a thickness of greater than or equal to about 100 angstroms and a continuous surface comprising columnar platinum pedestals terminating in dome-shaped tops, the columnar platinum pedestals having heights greater than or equal to about one-third of a total thickness of the platinum layer.

Claim 58 (new): The integrated circuit of claim 57 wherein:

the roughened platinum layer is continuous over an area of the substrate, the area of the substrate comprising at least about 4×10^6 square angstroms; and

the platinum pedestals are at least about 300 angstroms tall within the area.

Claim 59 (new): The integrated circuit of claim 57 wherein the platinum layer comprises hemispherical grain platinum.

Claim 60 (new): The integrated circuit of claim 57 wherein the platinum layer has a thickness of greater than or equal to about 400 angstroms.

Claim 61 (new): The integrated circuit of claim 57 wherein the platinum layer has a thickness of at least about 600 angstroms.

Claim 62 (new): The integrated circuit of claim 57 wherein the adhesion material comprises at least one or more of titanium nitride, iridium, rhodium, ruthenium, platinum, palladium, osmium, silver, rhodium/platinum alloy, IrO_2 , RuO_2 , RhO_2 , or OsO_2 .

Claim 63 (new): The integrated circuit of claim 57 wherein the roughened platinum layer is comprised by at least one capacitor electrode, the roughened platinum layer having a thickness of from about 400 angstroms to about 1000 angstroms and comprising platinum pedestals that are at least about 300 angstroms tall and terminate in dome-shaped tops.

Claim 64 (new): The integrated circuit of claim 63 further comprising at least two capacitor electrodes, wherein both capacitor electrodes comprise platinum, but only one of the capacitor electrodes comprises the roughened platinum layer.

Claim 65 (new): The integrated circuit of claim 57 further comprising a diffusion region incorporated with the substrate, the diffusion region physically contacting the adhesion material.

Claim 66 (new): The integrated circuit of claim 57 wherein the platinum layer further comprises rhodium.

Claim 67 (new): The integrated circuit of claim 57 further comprising a dielectric material above the platinum layer.